Please amend the paragraph beginning on line ~~14~~ 28, page ~~32~~ 14 as follows:

IDC-A10,AMD

The same group (Tucholski, Gene 223: 293-302 (1998), and Anna Podhajska, personal communication) had previously reported an amino acid sequence of eight residues for a single internal CnBr digestion fragment (sequence GRGRGVGV (SEQ ID NO:**50**)). PCR based on this sequence was attempted yet failed repeatedly. This sequence was found to be unrelated to MmeI once the actual MmeI amino acid sequence was determined in accordance with the present invention. Therefore correct internal amino acid sequences determination, which enabled the cloning of the MmeI gene, depended on the novel purification method described in this application for the production of sufficiently pure MmeI in large enough quantity to determine cyanogen bromide internal fragment amino acid sequences, as performed in this Application.

Please amend the paragraph beginning on line ~~21~~ 28, page ~~30~~ 21 as follows:

IDC-A11,AMD,M

An example of such an enzyme identified by this process is CstMI (see U.S. Application Serial No. **10/616,689**, filed concurrently herewith). CstMI was identified as a potential endonuclease because of its highly significant amino acid sequence similarity to MmeI. CstMI is encoded by sequence #2 above (SEQ ID NO:8), which gave highly significant Expectation value of e^{-171} when compared to MmeI by BLAST. CstMI recognizes the 6 base pair asymmetric sequence 5'-

EXAMINER'S AMENDMENT AND REASONS FOR ALLOWANCE

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Ms. Harriet M. Strimpel on June 12, 2006.

~~The application has been amended as follows:~~

In the A1 insert lines 8 & 9 and In the A2 insert line 19

~~On page 1, line 11 and page 8, line 12, delete "5' AGG(Py)TG 3'" and insert therefor~~ - 3'-AGG(Py)TG-5' -

IDC-B1,AMD

~~Delete cl~~ ~~7.~~

~~The following is an examiner's statement of reasons for allowance:~~

With the instant amendment, the application is ready for allowance. The claims are now limited to DNA encoding the *Mme*I restriction endonuclease and methylase, vectors and host cells containing them and a method of making the two enzyme by using the host cells. This is not found in the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles L. Patterson, Jr., PhD, whose telephone number is 571-272-0936. The examiner can normally be reached on Monday - Friday from 7:30 to 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ponnathapura Achutamurthy, can be reached on 571-272-0928. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Charles L. Patterson, Jr.
Primary Examiner
Art Unit 1652

Patterson
June 12, 2006